

Time phenomenon is the most interesting issue I can think of since it is the one of the reality fundamentals, the one of the very essentials of the Nature. Without Time nothing is possible. With Time... Everything is possible. All goes and it did.

When we explain Time we can explain the Multiverse theory.

That is why I write this introduction to my future Time travel article. I want to define the terminology, set the basic parameters and say few words about the development of the time idea through the course of the human history.

What is Time?

Time is a consequence of an energy transformation. Every event requires initial energy which may change, influence and travel.

What is the source of the primordial "enérgeia"? I leave this question for the

"Atheism vs Religion" debate.

Time is a consequence of action not the precursor. Very important factor but not the starting one. Energy is first! Primo: *energeia*. Then comes the effect and its related duration.

There are General Time (GT) - straight line from the point of the cosmic singularity to the edge of the Universe - and durations (dT) - every particle, object, action has its own duration composing the time thread. The two, General Time and durations, mutually synchronize because relative times (rT), third kind of Time - present in the spacetime anomalies - can make confusion. Durations summed, with simultaneities ignored, always give the amount of General Time without tiniest error.

$$GT = d1 + d2 + \dots dn.$$

Relative times (rT) are only valid locally.

Arrow of Time

There is a term "arrow of time". Perhaps you heard about it. What is an arrow of time? It is a direction in which the time flows. In what direction do you imagine time goes? Left to right, right to left or something third?

Western coordinate system reveals the answer. But try yourself: imagine the time flow in your head... Take your time.

Now look at standard western analogue clock - the numbers are distributed from left to right. It seems like the time flows from the left side to the right. Why?

In West people have adopted "left to right" writing pattern. Accordingly, their perception of the time direction is equivalent: from left to right. Our minds are customised in such manner. We selected a specific writing pattern and then attributed it to the time flow direction also. Very practical but it doesn't mean that it is correct just because we have selected it. We could have selected otherwise.

In East and Middle East, Chinese and Hebrews, are using "right to left" writing pattern. Ask them about the time flow direction. There are even languages using "up to down" or "down to up" writing pattern. Every script composition has its respective arrow of time related.

Modern clocks are digital: adding time unit on the top of the existing bundle but also resetting every 24 hours, regardless of the system used: 12 AM / PM or 24.

Humans have inner clock (circadian rhythm) resetting every 24 hours.

Moon resets every 33 years. It is called the lunar solar cycle.

Solar cycle, Schwabe cycle, is a period of eleven (11) years when Sun resets switching its magnetic poles and completing the Hale round after the switch has been returned to the original position. 10, 11, 11, 10. Do I see a binary code in the nature of the reality? Do I see an error correction instructions on the cosmic level?

Universe is a big watch with every part being smaller watch for itself. The system is monitored and balanced not only from up to down but also in reverse. The head is looking at the tail and the tail tickles the face creating the perfect equilibrium, an ultimate harmony, the divine unison.

Nothing lasted for an eternity, couldn't last any longer by mere logic and phase transitioned into the singularity - the first atom. It was when Time started to flow - from infinity backwards to the infinity. Not past to the future, 0 to infinity, not even vice versa. The clock is not counting up or down, left or right. The arrow of time has no specific direction. By having no specific direction it flows in every possible direction. It is just counting and re-counting. When this Universe dissolutes, becoming Nothing again, and an Eon passes the cosmic clock will fulfill and reset.

The Time spills in itself and back out driven by the constant energy transformation. Hence, the energy is the key of all misteries.

The black holes could be the bubbles of Time like air creates bubbles in the water.

Entropy

Entropy is a degree of the disorder in any system, Universe as well. Thermodynamics say it follows the arrow of time irreversibly: the more time passes the bigger the entropy becomes. Leave the fire unattended and it will burn the woods.

If we change the entropy in an isolated system will we change the arrow of time direction? How will you make things go backwards? How can you move the unmovable? Are you aware of the mass weight (return force)? Maybe if we learn how to influence the quantum field(s) and alter the particles properties.

Why don't we change the arrow of time direction itself? Remember, Time is weightless, floating, feather like.

We can shape Time as wet clay. When dried it becomes the solid Universe - new frame each moment: inhale time, exhale Cosmos.

To learn the Time travel first we must learn what Time is.

Time is considered scalar, space vector.

Time permeates things. It has the value but lacks pointing. You can not point the time.

Space has both the value and the direction(s). We can point to any place specifically and precisely.

Of course, because we look from the space perspective.

Imagine looking from the Time perspective. Then scalar turns into vector, and vector into scalar. Space and Time interchange. Where? In the

singularities, maybe? Why? Because we become compressed, zipped, infinitesimal, massless, not belonging to the space anymore, entering the quantum state, residing in the pure temporal domain.

Master the time. No, really, master the time, become faster and more efficient in what you do. Developed human brain has the ability to elongate time - during the crisis our mind double fires! Why don't we regularly double fire and quadruple during the crisis?

Because we neglect our mind on daily basis. People use their brain less and less with each passing day. Forget remote control, we are even developing artificial intelligence to think instead of us.

What is the result?

We will not remember the time anymore.

When we forget time... We forget who we are and what are our responsibilities as a most intelligent specie on the Earth.

We must protect not destroy the Gaia.

Time concept development

For a long time people have tied the basic temporal unit, second, with Earth`s rotation. Before that, for thousands of years, astronomy (movement of the celestial bodies) was used as a template.

Then humanity switched to the Cesium atomic clock defining one second as a time needed for the Cesium-133 atom doing exactly 9,192,631,770 oscillations not gaining nor losing a second in more than 100 million years (NIST-F1 Cesium Fountain Atomic Clock).

Nowadays, there are even more precise atomic clocks such as "Ytterbium

Lattice Clock (YbLC)".

Chronometry is the Time measuring science discipline.

There is an interesting timer called hourglass (sand clock).